ORLEN: The Energy of Tomorrow Starts Today

ORLEN offer

INDUSTRIAL INSIGHT

7 refineries, ~42.6 milion tonnes of crude oil / year

- Industrial use cases
- Real refinery and petrochemical streams
- Technology validation under industrially relevant conditions
- Scale-up, integration and exploitation perspective

SCIENTIFIC INSIGHT - ORLEN R&D CENTER

Where science becomes industrial reality

- Highly Experienced Research Teams
- Hydrodesulfurization and Hydrocracking pilot units
- Reforming pilot units
- Steam cracking pilot unit
- Bitumen production pliot reactor
- Blending instalation pilot unit
- Fuel testing on laboratory enginges
- Fuel and complex hydrocarbon analyticalcharacterization

WIDE EU COLLABORATION

- Lessons Learned from an ongoing Horizon Projects and submitted proposals with European Partners











ORLEN: European Collaboration as a Driving Force for Research and Development

Waste biomass and solar energy into Sustainable Aviation Fuel

TITLE: CIRCULAR FUELS

CALL: HORIZON-CL5-**2022**-D3-02

Emulsion-catalysed slurry upgrading of mixed biocrudes and lignin for the production of sustainable transportation fuels

TITLE: EmuJET

CALL: HORIZON-CL5-**2026**-04 – Two-Stage

Modular technology for purifying hydrogen streams and enabling decentralised production and use

TITLE: PureSTREAM

CALL: HORIZON-CL5-**2026**-04 - Two-Stage

Advanced Synthetic Chemicals and E-fuels for the Net-zero Transition

TITLE: ASCENT

CALL: HORIZON-CL5-**2026**-04 (proposal stage)

IsoFuel – CO_2-to-Synthetic Aviation Fuel (e-SAF) via Co-Electrolysis and Isosynthesis Process

TITLE: IsoFUEL

CALL: CETP-**2026**-00095 (proposal stage)

Bio-based Industrial Opportunities: Evidence, Alliances and Guidance for Leading 3 industrial sectors

TITLE: BIOEAGL3

CALL: HORIZON-CID-**2026**-01-02

We actively seek partners for:

HORIZON-CL5-2027-07-D3-27

Integrated Approaches for Retrofitting Infrastructures with Innovative Energy Storage Technologies

Retrofit existing refinery assets into flexible multi-energy storage hubs

Integrate hydrogen and thermal energy storage with existing infrastructure

LOHC-based hydrogen storage, PEG-based phase change materials (PCM)

HORIZON-CL5-2027-02-D3-08

Co-funding Strategic Energy Technology (SET) Plan renewable fuel value chains at EU, national, regional, and local level

Develop and scale up renewable fuels – from R&D and pilot testing to demonstration

Within the SET Plan – Renewable Fuels & Bioenergy and complementary to CET Partnership

Advanced biofuels from biomass e.g. lignin



If your project needs

- Reliable industrial partner
- Realistic feedstocks
- Pilot scale validation
- Credible route into existing industrial infrastructure

Let’s connect!

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